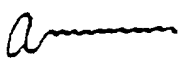
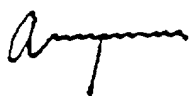






FIG 1

Path # used in the prototype study notebook	Silhouette	Definition of Profile
.001		Capital "A" with no "poles" or "holes" (No protruding letters like "b, d, h, k, l" above midline or below baseline such as "g, p, y, z, x, etc.")
.002		Capital "A" with one "hole" (down stroke) somewhere in the middle of the word --at least one letter away from the capital "A" and not at the end.
.003		Capital "A" with one "hole" (down stroke) at the end.
.005		Capital "A" with one "pole" (high stroke) somewhere in the middle of the word --at least one letter away from the capital "A" and not at the end or next to the end.
.006		Capital "A" with one "pole" (high stroke) located one letter away from the end -- such as "-le, -ly, -de, -te, -dy, -by, etc."
.007		Capital "A" with one "pole" (high stroke) located at the end.



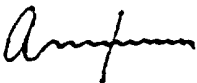

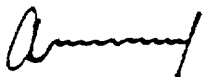

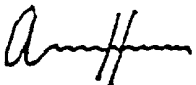



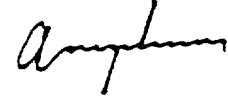
Path # used in the prototype study notebook	Silhouette	Definition of Profile
.025		Capital "A" with two adjacent "poles" (two consecutive up strokes) somewhere in the middle of the word -- at least one letter away from the capital "A" and not at the end
.043		Capital "A" with two adjacent "poles" (two consecutive up strokes) at the terminal end.
.052		Capital "A" with "pole" fused with a "hole" creating a continuous line that breaks both the upper and lower horizon lines. --- This would recognize the present day cursive letter "f" and could also filter 18th century words for the old style "s". 
.092		Terminal "P" or 18th century "s" ()
.102		Double "P" or double 18th century "s" located in the middle of the name.
.120		Double terminal "P" or 18th century "s" at end of the word.

Fig 2B

 +
  →
 

.002

.005

2-5

Fy 3A

The same two prime profiles could be fused in the opposite order to yield a "5 - 2" hybrid.

 +
  →
 

.005

.002

5-2

FIS 3B

2025 RELEASE UNDER E.O. 14176

Naming First Syllable Blends:

"high profile" letters or "Talls"	Prime #	"low profile" letters (gophers)	Prime #	both High and Low profile letter	Prime #	First Syllable Blend	FILE #	Definition
						A---	10	"A" \ no high profile in adjacent position
b	1					Ab---	110.	"Ab"-- only one high profile letter followed by median
						Abb---	111.	"Abb"-- two high profile letters adjacent to "A"
d	2					Ad---	120.	2nd letter "high" 3rd letter "median"
						Adb--	121.	2 "Highs" (d b)
						Add--	122.	2 "Highs" (d d)
						Adk--	124.	2 "Highs" (d k)
						Adl---	125.	2 "Highs" (d l)

FIG 4

CHENANGO COUNTY, NEW YORK

Town	Photocopy of Document (N.Y. Tax Rolls - 1800)	Path # (Zip Code)	Hybridization Factors	Silhouette	Digitized Name
Brookfield					
1	Amos Zebulon	10.001	-	Amos	Amos
2	Anderson William	10.016	5.2	And	Anderson
3	Anderson William junr	10.061	5.52	And	Anderson
4	Allen Hyndiah	155.001	-	Al	Allen
5	Abbey Daniel	111.003	-	Al	Abbey

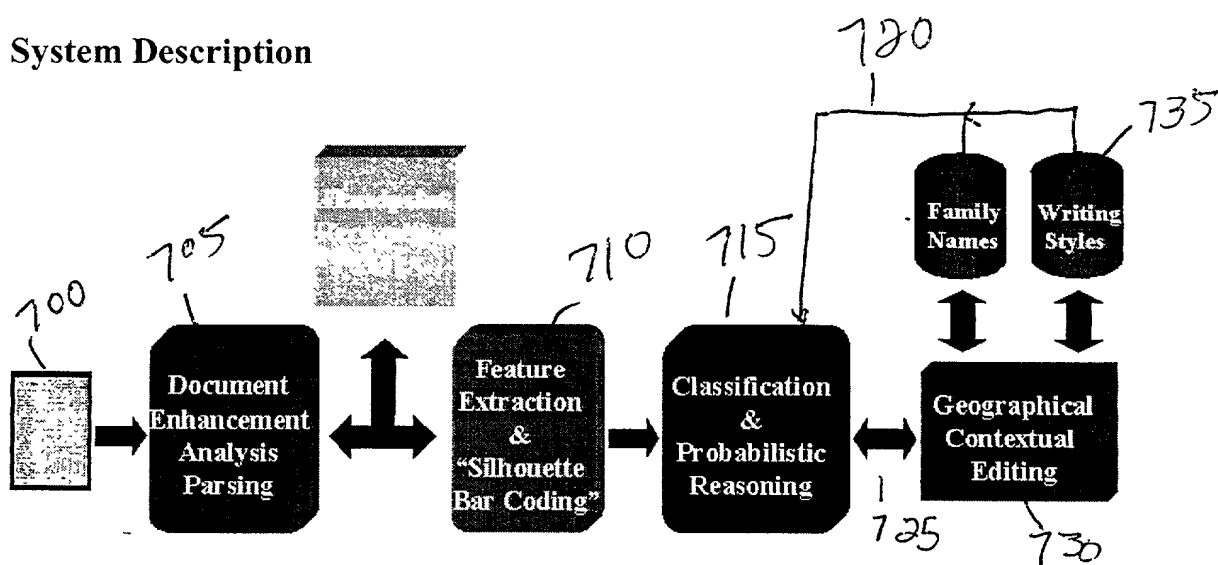
Cazenovia					
7	Alger Oliver	150.002	-	Al	Alger
8	Alger David	same	-	same	same
9	Adams Daniel	120.001	-	Ad	Adams
9	Allen William	155.001	-	Al	Allen
10	Anderson William	10.005	-	And	Anderson
11	Abby Richard	111.003	-	Al	Abby
12	Aldridge Rusty	152.016	5.2	Al	Aldridge
13	Aditt Henry	120.043	-	Ad	Aditt
14	Alsworth Jasper	150.043	-	Al	Alsworth
15	Anderson Harmonius	10.005	-	And	Anderson
16	Aldridge Joseph	152.016	5.2	Al	Aldridge
17	Arnold Poley	10.043	-	Arn	Arnold
18	Alvord Benjamin	150.007	-	Al	Alvord
19	Alvord Ira	same	-	same	same
20	Abell David	110.043	-	Ab	Abell
21	Annis Oliver	10.001	-	An	Annis (Amis)
22	Abbat Willard	111.007	-	Ab	Abbat (Abbat)
23	Austin Caleb	10.005	-	Aus	Austin
24	Aber William	110.001	-	Ab	Aber
25	Ashard Samuel	10.023	5.7	Ash	Ashard *
26	Allverton William	155.005	-	All	Allverton

768
85

* Name found in 1800 N.Y. tax rolls, but not in West L.A. phone book
Consequently, this would not have been included in a spellcheck list

	10 001	10 002	10	10 004	10 005	10 006	10	10 008	10 009	10 010
#s	PRIME	PRIME	2-3	PRIME	PRIME	PRIME		2-2	2-5	2-5-3
inquette	Am	Art	Amey	Amey	Amey	Amey	Amey	Amey	Amey	Amey
				Acken						
	Aaron			Acker	Acevedo	Acret				
	Aaronson			Ackerman						
				Ackermann						
	Accas			Ackerson						
	Acamon			Acton	Acosta					
	Acres			Ainslie						
	Acaves			Amber		Amer				
				Ambers		Amick				
	Ain		Airev	Ambrase		Amound				
	Ainis			Ambrosini						
	Airs			Ambrosio						
				Amiani						
	Ames	Amcaro	Amev	Amier						
	Amies	Amcare	Ameri	Amiin						
	Amin			Anastasi		Anisn		Angelino		
	Aminian	Amvas		Anderson		Annand		Angels		
	Amis			Andersson		Ansel		Anglin		
	Amiss			Andiman				Angsten		
	Ammerman			Andrew						
	Ammons			Andrews						
	Amos			Andrus						
	Amron			Anker						
				Ankers						
	Anis	Angres		Annakin						
	Anisman		Anning	Anselmo						
	Annis	Anguiano		Anslie						
	Ansin		Ansary	Anstie						
	Anson		Ansav	Antin				Anzalone		
	Ansan			Anton						
	Anwar	Angus								
		Angwin		Arbisser		Arch		Argueta	→ 2-5	
	Arenson	Anyan		Archie	Anola	Armench		Arrington		
	Arias		Arcay	Archer	Armenta	Ammand				
	Aris		Amey	Arden	Arruda	Ammond				
	Anson		Aronowicz	Arden						
	Armer	Aragon		Ardmore						
	Armon	Araiza		Arduer						
	Armour	Anza		Arlen						
	Arnesen			Ascher		Ash				
	Aron			Asher						
	Aronson			Ashenan						
	Aronow			Ashman						
	Arrow			Ashmore						
				Ashoun						
	Asimov			Askari						
	Asner			Askari						
				Askew						
	Auer			Aster						
	Aves			Aston		Auch		Augustein		
	Avin		Avery	Austen	Avila			Augustine		
1/6/99	Avins			Austin		Aveni				

System Description



System Block Diagram

§ Preprocessing:

FIG 7

800

Define cursive field columns
& printing (integers)
& column delimiter



805

Set word both
& word zones
waistline, centerline baseline

810

Noise removal
Stray marks/distance

815

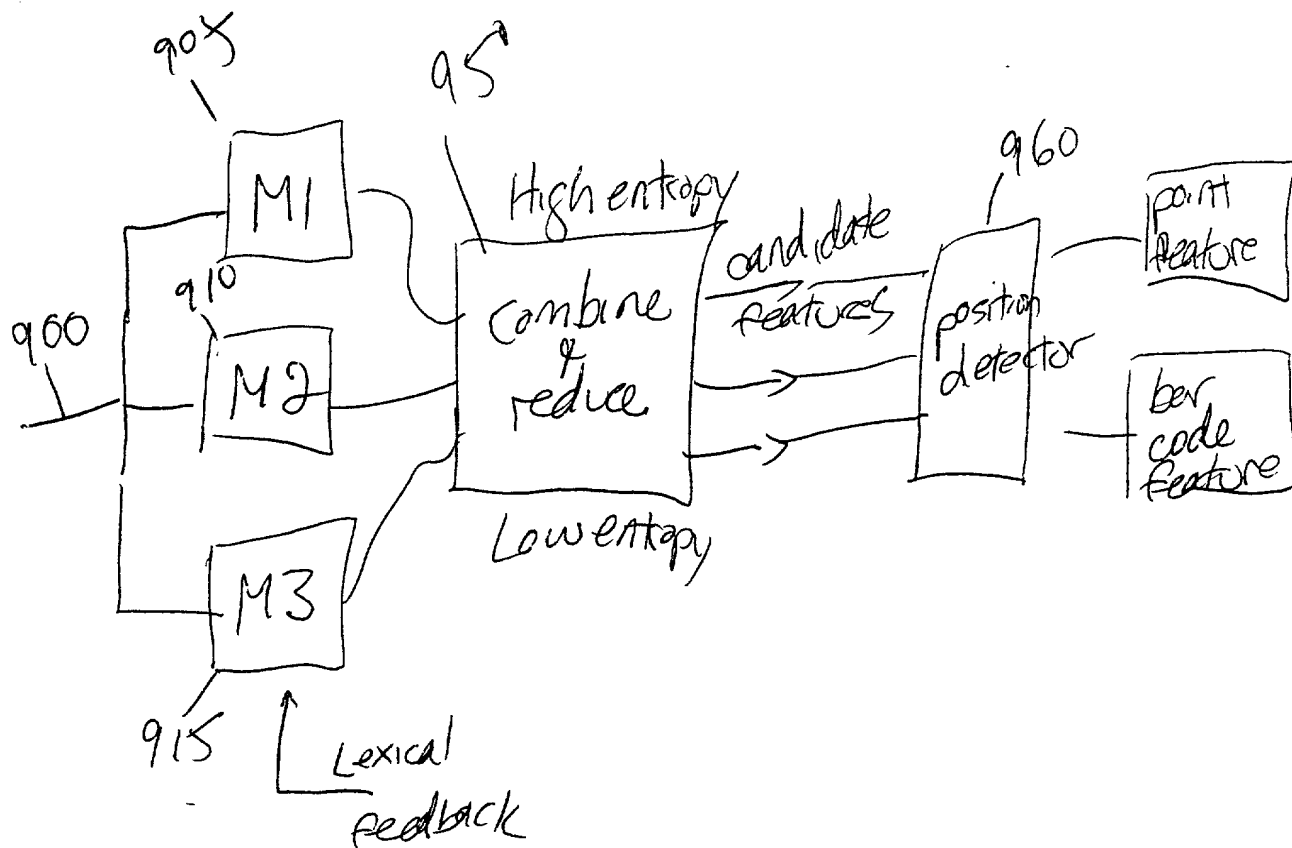
Thinning skeletonization

820

Height normalization
Preserve aspect ratio

(A)

F168



F 169

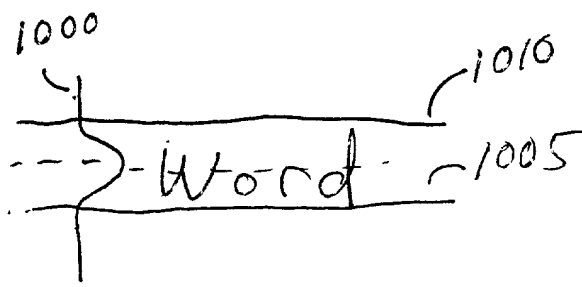


FIG 10

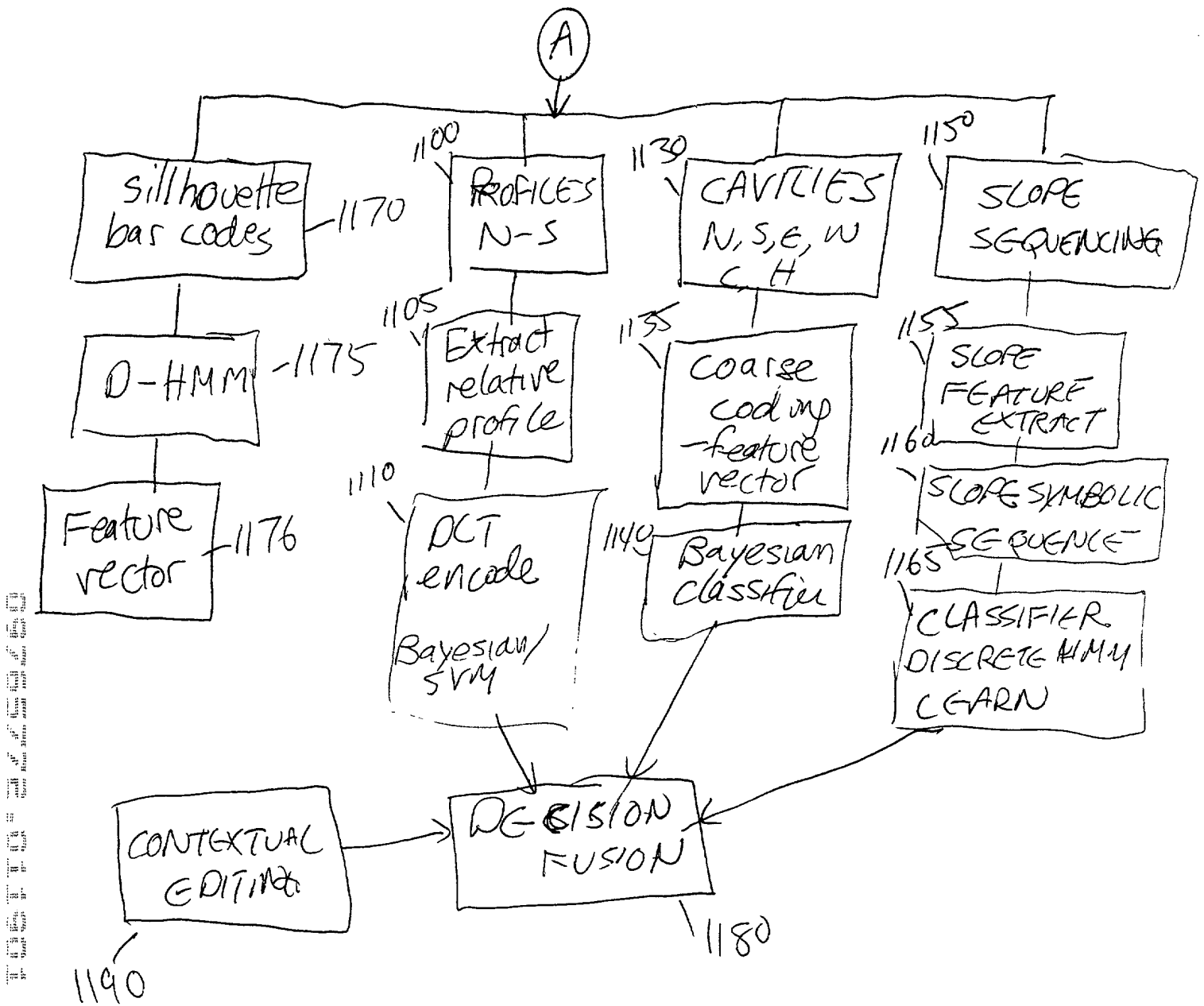


FIG 11

Figure 12. The north (blue) and south (red) profiles extracted from the cursive name Catharine.

Catharine

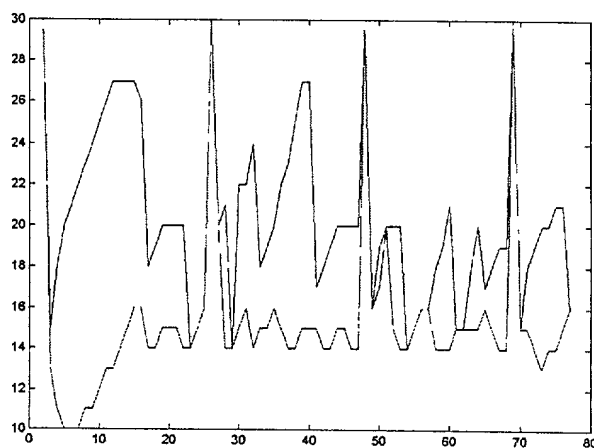


FIG. 12



North



West



Word



East



Holes



South



Center

Figure 13. Cavity feature extraction results.

FIG. 13